

CLAIMS

1. A sliding bearing comprising:
a first bearing body having an annular surface;
a second bearing body which is superposed on said first bearing body so as to be rotatable about an axis of said first bearing body, and has an annular surface opposed to the annular surface of said first bearing body; and
a synthetic resin-made annular sheet which is interposed between the annular surfaces and slidably abuts against at least one of said bearing bodies.
2. The sliding bearing according to claim 1, wherein said annular sheet is formed of a synthetic resin including at least one of polyamide resin, polyester resin, polyolefin resin, polycarbonate resin, and fluororesin.
3. The sliding bearing according to claim 1 or 2, wherein said annular sheet has a thickness of from 0.05 mm to 1.0 mm.
4. The sliding bearing according to any one of claims 1 to 3, wherein both of said bearing bodies are formed of a synthetic resin.
5. The sliding bearing according to any one of claims 1 to 4, wherein both of said bearing bodies are formed of a synthetic resin including at least one of polyacetal resin, polyamide resin, polyester resin, polyolefin resin, polycarbonate resin, and fluororesin.
6. The sliding bearing according to any one of claims 1 to 4, wherein said first bearing body is formed of polyacetal resin, and said second bearing body is formed of a synthetic resin including at least one of polyacetal resin, polyamide resin, polyolefin resin, and fluororesin.
7. The sliding bearing according to any one of claims 1 to 6, wherein said first bearing body at a radially outer peripheral edge portion thereof is adapted to be

resiliently fitted to said second bearing body at a radially outer peripheral edge portion of said second bearing body.

8. The sliding bearing according to any one of claims 1 to 7, wherein a labyrinth is formed between said bearing bodies in at least one of the outer peripheral edge portions and inner peripheral edge portions, as viewed in a radial direction, of both of said bearing bodies.

9. The sliding bearing according to any one of claims 1 to 8, wherein said second bearing body has a projection formed integrally on the annular surface thereof, and said sheet is interposed between said projection and the annular surface of said first bearing body and slidably abuts against at least one of said projection and the annular surface of said first bearing body.

10. The sliding bearing according to claim 9, wherein a closed recess surrounded by said projection is formed on the annular surface of said second bearing body, and a fluid is adapted to be filled in at least one of said closed recess and an annular closed space formed between said annular sheet and the annular surface of said first bearing body and corresponding to said closed recess.

11. The sliding bearing according to claim 10, wherein the fluid filled in at least one of said closed recess and said closed space is adapted to receive a thrust load.

12. The sliding bearing according to claim 10 or 11, wherein said projection is adapted to be flexurally deformed under a thrust load so as to make small one of a fluid filling capacity of said closed recess and a fluid filling capacity of said closed space.

13. The sliding bearing according to any one of claims 10 to 12, wherein said projection is adapted to be flexurally deformed under a thrust load so as to cause the fluid in at least one of said closed recess and said closed space to generate internal pressure by making small at least one of the fluid filling capacity of said closed recess

and the fluid filling capacity of said closed space.

14. The sliding bearing according to any one of claims 10 to 13, wherein the fluid includes at least one of grease and lubricating oil.

15. The sliding bearing according to any one of claims 10 to 13, wherein the fluid is constituted by silicone-based grease.

16. The sliding bearing according to any one of claims 9 to 15, wherein said projection includes at least an inner annular projection disposed on an inner peripheral side and an outer annular projection disposed radially outwardly of and substantially concentrically with said inner annular projection.

17. The sliding bearing according to any one of claims 9 to 15, wherein said projection includes at least an inner annular projection disposed on an inner peripheral side, an outer annular projection disposed radially outwardly of and substantially concentrically with said inner annular projection, and a radial protrusion extending radially and connected integrally to respective ones of said inner annular projection and said outer annular projection.

18. The sliding bearing according to claim 16 or 17, wherein said projection further includes at least one intermediate annular projection disposed between and substantially concentrically with said inner annular projection and said outer annular projection, as viewed in the radial direction.

19. The sliding bearing according to any one of claims 9 to 18, wherein said second bearing body includes a bearing member and an annular piece disposed between said bearing member and said first bearing body so as to be rotatable about the axis of said first bearing body with respect to at least one of said first bearing body and said bearing member, and said annular piece has said annular surface opposing the synthetic resin-made annular surface of said first bearing body as well as said projection formed

integrally on said annular surface.

20. The sliding bearing according to claim 19, wherein said bearing member is formed of polyacetal resin, and said annular piece is formed of a synthetic resin including at least one of polyamide resin, polyolefin resin, and fluororesin.

21. The sliding bearing according to claim 19 or 20, wherein said annular piece has another annular surface disposed oppositely to said annular surface opposing the annular surface of said first bearing body as well as other projection formed integrally on said other annular surface, and said bearing member has a synthetic resin-made annular surface opposing the other annular surface of said annular piece and slidably abutting against said other projection.

22. The sliding bearing according to claim 21, wherein a synthetic resin-made other annular sheet is interposed between the annular surface of said bearing member and said other projection, and said other annular sheet slidably abuts against at least one of the annular surface of said bearing member and said other projection.

23. The sliding bearing according to claim 22, wherein said other annular sheet is formed of a synthetic resin including at least one of polyamide resin, polyester resin, polyolefin resin, polycarbonate resin, and fluororesin.

24. The sliding bearing according to claim 22 or 23, wherein said other annular sheet has a thickness of from 0.05 mm to 1.0 mm.

25. The sliding bearing according to any one of claims 22 to 24, wherein another closed recess surrounded by said other projection is formed on the other annular surface of said annular piece, and another fluid is adapted to be filled in at least one of said other closed recess and another annular closed space formed between the annular surface of said bearing member and said other annular sheet corresponding to said other closed recess.

26. The sliding bearing according to claim 25, wherein the other fluid filled in said other closed recess and said other closed space is adapted to receive a thrust load.

27. The sliding bearing according to claim 25 or 26, wherein said other projection is adapted to be flexurally deformed under a thrust load so as to make small at least one of a fluid filling capacity of said other closed recess and a fluid filling capacity of said other closed space.

28. The sliding bearing according to any one of claims 25 to 27, wherein said other projection is adapted to be flexurally deformed under a thrust load so as to cause the other fluid in at least one of said other closed recess and said other closed space to generate internal pressure by making small at least one of the fluid filling capacity of said other closed recess and the fluid filling capacity of said other closed space.

29. The sliding bearing according to any one of claims 25 to 28, wherein the other fluid includes at least one of grease and lubricating oil.

30. The sliding bearing according to any one of claims 25 to 28, wherein the other fluid is constituted by silicone-based grease.

31. The sliding bearing according to any one of claims 21 to 30, wherein said other projection includes at least another inner annular projection disposed on an inner peripheral side and another outer annular projection disposed radially outwardly of and substantially concentrically with said other inner annular projection.

32. The sliding bearing according to any one of claims 21 to 30, wherein said other projection includes at least other inner annular projection disposed on an inner peripheral side, other outer annular projection disposed radially outwardly of and substantially concentrically with said other inner annular projection, and other radial protrusion extending radially and connected integrally to respective ones of said other inner annular projection and said other outer annular projection.

33. The sliding bearing according to claim 31 or 32, wherein said other projection further includes at least one other intermediate annular projection disposed between and substantially concentrically with said other inner annular projection and said other outer annular projection, as viewed in the radial direction.

34. The sliding bearing according to any one of claims 1 to 33, wherein said first and said second bearing bodies respectively have mutually opposing cylindrical surfaces, a synthetic resin-made cylindrical sheet being interposed between the cylindrical surfaces, said cylindrical sheet slidably abutting against at least one of the cylindrical surfaces.

35. The sliding bearing according to claim 34, wherein said cylindrical sheet is formed of a synthetic resin including at least one of polyamide resin, polyester resin, polyolefin resin, polycarbonate resin, and fluororesin.

36. The sliding bearing according to claim 34 or 35, wherein said cylindrical sheet has a thickness of from 0.05 mm to 1.0 mm.

37. The sliding bearing according to any one of claims 1 to 36 for use as a thrust sliding bearing of a strut-type suspension in a four-wheeled vehicle.